



## Technical Memorandum

EPA Region 5 Records Ctr.



365811

**Date:** September 12, 2007  
**To:** Michael Berkoff, USEPA  
**cc:** Jennifer Hale, Weyerhaeuser Company  
**From:** Jim Hutchens, RMT, Inc.  
**Project No.:** 00-05131.04  
**Subject:** Release Report – 12<sup>th</sup> Street Landfill

As we discussed yesterday, a release of biodegradable hydraulic oil from the pump operating within the powerhouse discharge channel at the 12<sup>th</sup> Street Landfill site in Plainwell, Michigan, was experienced. Sometime during the night of September 10, 2007, one of the seals within the submersible pump began to leak. While we have someone on site monitoring pumping operations, it was not visible until the morning that a leak was occurring. The pump was shut down as soon as the problem was identified. Based on the fluid within the reservoir, it appears that 2 to 3 gallons of the material was released.

The fluid used within the pump is "EnviroLogic 146 Biodegradable Hydraulic Fluid." EnviroLogic 146 Biodegradable Hydraulic Fluid is readily biodegradable and a non-hazardous ISO 46 grade hydraulic oil based on natural ester technology and is a direct replacement for petroleum oil based hydraulic fluids. A copy of the material safety data sheet for this material is attached to this technical memorandum. The material was pumped along with water from the channel into the secondary containment area which is a roll-off dumpster surrounded by impermeable silt curtains. The majority of fluid was contained within this area and absorbent pads were used to remove as much of the residual fluid as possible. A new pump was delivered to the site and placed within the channel area and the defective pump will be removed from the site.

The release was reported to the National Response Center under Report No. 848512. A copy of the release report is also attached to this technical memorandum. Photographs of the area taken this morning are also included.

If you have any questions or need additional information, please contact me at 262-879-1212.



## Material Safety Data Sheet

# EnviroLogic® 146 Biodegradable Hydraulic Fluid

### Section 1 Chemical Product and Company Information

Terresolve Technologies Ltd.  
35585 Curtis Blvd.  
Eastlake, Ohio 44095  
Phone: 440-951-8633  
Fax: 440-951-4341

PRODUCT TRADE NAME:	EnviroLogic® 146
CAS NO:	Not applicable for mixtures.
SYNONYMS:	None.
GENERIC/CHEMICAL NAME:	Mixture.
PRODUCT TYPE:	Biodegradable Hydraulic Fluid
PREPARATION/REVISION DATE:	09/01/04
TRANSPORTATION EMERGENCY PH NO:	1-800-661-3558

### Section 2 Composition/Information On Ingredients

NAME	CAS#	%wt.
This material has no known hazards under applicable laws.		

### Section 3 Hazards Identification

PRINCIPAL HAZARDS: This material has no known hazards.

See Section 11 for complete health hazard information.

### Section 4 First Aid Measures

ORAL:	DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.
EYE:	Flush with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
SKIN:	Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.
INHALATION:	Remove exposed person to fresh air if adverse effects are observed.
ADDITIONAL:	Note to physician: Treat symptomatically.

### Section 5 Firefighting Measures

FLASH POINT (Typical): >400 °F (Typical) (COC)



UPPER FLAMMABLE LIMIT:	Not Determined.
LOWER FLAMMABLE LIMIT:	Not Determined.
EXTINGUISHING MEDIA:	CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.
SPECIAL FIREFIGHTING PROCEDURES:	Recommend wearing self-contained breathing apparatus. Water may cause splattering. Material will float on water.
UNUSUAL FIRE & EXPLOSION HAZARDS:	Toxic fumes, gases or vapors may evolve on burning.
AUTOIGNITION TEMPERATURE:	Not Determined.
EXPLOSION DATA:	Material does not have explosive properties.

**Section 6 Accidental Release Measures**

SPILL PROCEDURES:	Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Ventilate area if spilled in confined space or other poorly ventilated areas. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.  Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.
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**Section 7 Handling and Storage**

HANDLING PROCEDURES:	Keep containers closed when not in use. Wash thoroughly after handling. Empty container contains product residue which may exhibit hazards of product.
STORAGE PROCEDURES:	No special storage precautions required.

**Section 8 Exposure Controls/Personal Protection**

VENTILATION PROCEDURE:	Use with adequate ventilation.
GLOVES PROTECTION:	Use nitrile or neoprene gloves.
EYE PROTECTION:	Safety Glasses.
RESPIRATORY PROTECTION:	Under normal use conditions, respirator is not usually required. Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded.
CLOTHING RECOMMENDATION:	Long sleeve shirt is recommended.

**Section 9 Physical And Chemical Properties**



VAPOR PRESSURE:	Not Determined.
PH:	Not Determined.
SPECIFIC GRAVITY:	0.92 at 15.6 Deg C
WATER SOLUBILITY:	Insoluble.
PERCENT VOLATILE:	Unknown.
VAPOR DENSITY:	Not Determined.
EVAPORATION RATE:	Not Determined.
ODOR:	Mild
APPEARANCE:	Golden liquid
VISCOSITY:	46 Centistokes at 40 Deg C (Typical)
ODOR THRESHOLD:	Unknown.
BOILING POINT :	Not Determined.
FREEZING POINT:	Not Determined.
MOLECULAR WEIGHT:	Not Determined

**Section 10 Stability And Reactivity**

STABILITY:	Material is normally stable at moderately elevated temperatures and pressures.
INCOMPATIBILITY:	Oxidizing agents.
POLYMERIZATION:	Will not occur.
THERMAL DECOMPOSITION:	Smoke, carbon monoxide, aldehydes and other products of incomplete combustion.

**Section 11 Toxicological Information**

ORAL TOXICITY:	The LD50 in rats is > 5000 mg/kg. Based on data from components or similar materials.
EYE IRRITATION:	Not expected to cause eye irritation. Based on data from components or similar materials.
SKIN IRRITATION:	Not expected to be a primary skin irritant. Based on data from components or similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
DERMAL TOXICITY:	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.



INHALATION TOXICITY:	No data available to indicate product or components may be a toxic inhalation hazard.
RESPIRATORY IRRITATION:	If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract similar to that observed with mineral oil. Based on data from components or similar materials. Under good industrial hygiene practices where all exposure limits are observed, respiratory irritation should not be a problem.
DERMAL SENSITIZATION:	No data available to indicate product or components may be a skin sensitizer.
INHALATION SENSITIZATION:	No data available to indicate product or components may be respiratory sensitizers.
CHRONIC TOXICITY:	No data available to indicate product or components present at greater than 1% are chronic health hazards.
CARCINOGENICITY:	No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.
MUTAGENICITY:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
REPRODUCTIVE TOXICITY:	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
TERATOGENICITY:	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.
OTHER:	No other health hazards known.
EXPOSURE LIMITS:	EXPOSURE LIMITS: Contains natural ester base oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH STEL of 10 mg per cubic meter.

**Section 12 Ecological Information**

FRESHWATER FISH TOXICITY:	Fathead minnow, 96h LC50, ppm EPA Test Method 797.1400	>10,000
FRESHWATER INVERTEBRATES TOXICITY:	Daphnia magna, 48h, EC50, ppm EPA Test Method 797.1300	>10,000
ALGAE TOXICITY:	Algae EC50, ppm EPA Test Method 797.1050	100 – 1000
BACTERIA TOXICITY:	Sludge respiration inhibition, EC50, ppm	>10,000
ENVIRONMENTAL FATE:	Product shows a biodegradability of >60% as measured by OECD 301B (Mod. Sturm) test procedure.	

**Section 13 Disposal Considerations**

WASTE DISPOSAL: Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA. Waste management should be in compliance with federal, state, and local laws.

**Section 14 Transport Information**

U.S.DOT BULK SHIPPING DESCRIPTION: Not applicable

U.S.DOT NON-BULK SHIPPING DESCRIPTION: Not applicable

IMDG SHIPPING DESCRIPTION: Not applicable.

ICAO SHIPPING DESCRIPTION: Not applicable.

ADR/RID HAZARD CLASS: Not applicable.

**Section 15 Regulatory Information**

U.S. TSCA INVENTORY: All components of this material are on the US TSCA Inventory.

SARA EXT. HAZ. SUBST.: This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

SARA SECTION 313: This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA Section 313.

CERCLA HAZARDOUS SUBSTANCES: None known.

CAL. PROP. 65: This product does not contain chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components.

U.S. FUEL REGISTRATION: Not applicable.

U.S. DEPT. OF AGRICULTURE: This product has not been filed with the USDA to support H2 approvals.

EEC EINECS: All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.

JAPAN MITI: All components are in compliance with the Chemical Substances Control Law of Japan.

AUSTRALIA: All components are in compliance with chemical notification requirements in Australia.

CANADA: All components are in compliance with the Canadian Environmental Protection Act.

**EnviroLogic® 146 Hydraulic Oil****Material Safety Data Sheet**

Section	16	Other Information
NFPA CODE:	Health: 1      Fire: 1	Reactivity: 0
HMIS CODE:	Health: 1      Fire: 1	Reactivity: 0
PRECAUTIONARY LABELS:	This material has no known hazards.	

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of the knowledge of Terresolve Technologies Ltd.; however, Terresolve Technologies makes no warranty whatsoever, expressed or implied, of MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE, regarding the accuracy of such data or the results to be obtained from the use thereof. Terresolve Technologies assumes no responsibility for injury to recipient or to third persons or for any damage to any property and recipient assumes all risks.



:: ONLINE REPORTING &gt; FIXED REPORT ::

848512 Report #

Fields displayed in RED are mandatory entries. Please fill out the form as completely as possible.

Is this a DRILL Report ? <input type="radio"/> YES <input checked="" type="radio"/> NO	E-Mail Address: <u>james.hutchens@rmtinc.com</u>
<b>REPORTING PARTY</b>	<b>SUSPECTED RESPONSIBLE PARTY</b>
Phone 1: <u>262-879-1212</u> Type: <u>Primary</u>	Last Name: <u></u>
Last Name: <u>Hutchens</u>	First Name: <u></u>
First Name: <u>James</u>	Phone 1: <u></u> Type: <u>Phone Type</u>
Phone 2: <u>414-687-2428</u> Type: <u>Cellular</u>	Phone 2: <u></u> Type: <u>Phone Type</u>
Phone 3: <u></u> Type: <u>Phone Type</u>	Phone 3: <u></u> Type: <u>Phone Type</u>
Company: <u>RMT Inc.</u>	Company: <u></u>
Org Type: <u>Private Enterprise</u>	Org Type: <u>Private Enterprise</u>
Address: <u>150 N patrick Blvd</u>	Address: <u></u>
<u></u>	<u></u>
City: <u>Brookfield</u>	City: <u></u>
State: <u>Wisconsin</u>	State: <u>Choose State</u>
ZIP: <u>53045</u>	ZIP: <u></u>
Are you calling on behalf of responsible party:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Are you or your company responsible for Material released:	<input checked="" type="radio"/> Yes <input type="radio"/> No
<b>INCIDENT DESCRIPTION</b>	
Description of Incident: <u>Using hydraulic pump to remove water for a USEPA Superfund Emergency Action site.</u> <u>A seal on the hydraulic pump, malfunctioned allowing approximately 2-3 gallons of</u>	
Incident Date: <u>11</u> <u>SEP</u> <u>2007</u> Time: <u>7AM</u>	Occurred/Discovered/Planned: <u>Discovered</u>
Type of Incident: <u>FIXED</u>	Incident Cause: <u>Equipment Failure</u>
Package: <input type="radio"/> Yes <input checked="" type="radio"/> No	

## INCIDENT LOCATION

## Location Description:

Former Powerhouse Channel Kalamazoo River adjacent to the 12th Street Landfill

## Address Location:

12th Street

State: Michigan

County: Allegan

ZIP:

Nearest City: Plainwell

Distance from Nearest City: 0.5

Units: Miles

Direction: Choose Direction

Range:

Section:

Township: Otsego

Latitude: Degrees: 42 Minutes: 27 Seconds: 24.5

Quadrant: North

Longitude: Degrees: 85 Minutes: 40 Seconds: 9.5

Quadrant: West

## FIXED INCIDENT LOCATION DETAILS

Facility Name/ID: 12th Street Landfill

## FIXED INCIDENT DESCRIPTION DETAILS

Fixed Object / Facility Type: Construction Site

Compliance with NPDES Permits: ☒ Yes ☐ No ☐ UnknownPower Generating Facility: ☐ Yes ☒ No ☐ Unknown Type of Fuel: Choose Type of Fuel

Generating Capacity:

## MATERIAL INVOLVED

## MATERIAL #1

Material: Envirologic 146 Biodegradable Hydraulic Fl

CHRIS Code:

CAS Code:

Amount Released: 2-3

Units: GALLONS

Amount in Water: 2-3

Units: GALLONS

## MATERIAL #2

Material:

CHRIS Code:

CAS Code:

Amount Released:

Units: Choose Unit

Amount in Water:

Units: Choose Unit

## MATERIAL #3

Material:

CHRIS Code:

CAS Code:

Amount Released:

Units: Choose Unit

Amount in Water:

Units: Choose Unit

## MATERIAL #4

Material:

CHRIS Code:

CAS Code:

Amount Released:

Units: Choose Unit

Amount in Water:

Units: Choose Unit

## MATERIAL #5

Material:  CHRIS Code:  CAS Code: Amount Released:  Units:  Choose Unit  Amount in Water:  Units:  Choose Unit 

## MATERIAL IN WATER INFORMATION

Body of Water Affected:  Kalamazoo River Offshore: ☐ Yes ☒ No River Mile Marker: Tributary of:  Water Supply Contaminated: ☐ Yes ☒ No ☐ UnknownWater Temperature:  Units:  Choose Unit Wave Condition:  Choose Condition  Speed:  Units:  Choose Unit  Direction:  Choose Direction 

## SHEEN INFORMATION

Sheen Length:  Contained wit Units:  Choose Unit  Sheen Width:  Units:  Choose Unit Color:  Choose Color  Direction of Movement:  Choose Direction Odor Description: 

## IMPACT INFORMATION


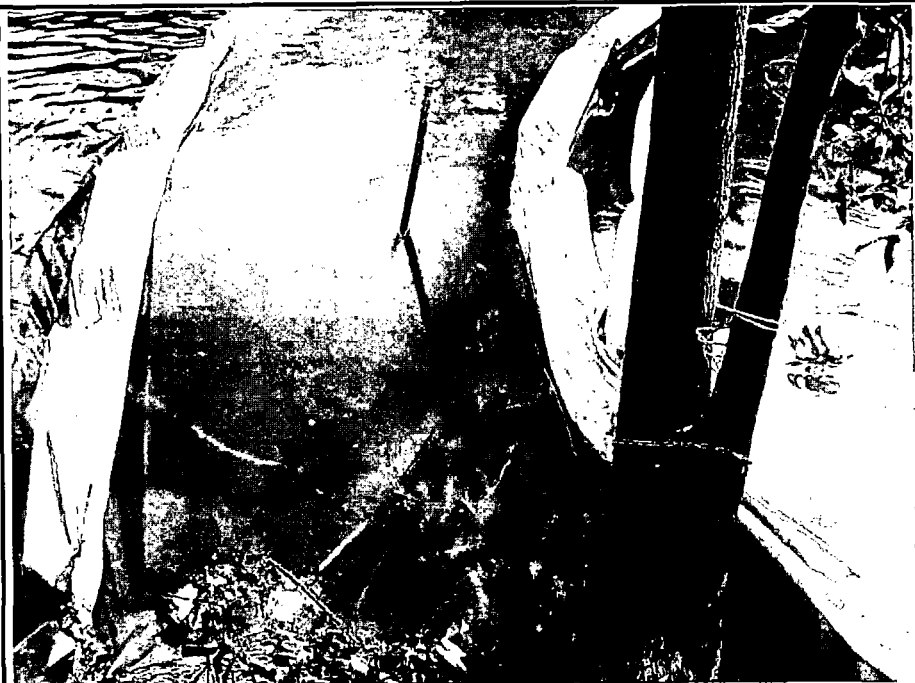
Medium Affected:  Choose Medium  Detailed Medium Information: Fire: ☐ Yes ☒ No ☐ Unknown Fire Extinguished: ☐ Yes ☐ No ☒ UnknownInjuries: ☐ Yes ☒ No ☐ UnknownNumber of Injuries: Number to Hospital: Rail Employee Injuries: Rail Passenger Injuries: Fatalities: ☐ Yes ☒ No ☐ UnknownNumber of Fatalities: Employee Fatalities: Passenger Fatalities: Vehicle Fatalities: Evacuations: ☐ Yes ☒ No ☐ UnknownNumber Evacuated: Radius/Area in Miles: Who was Evacuated:  Choose Who was Evacuated Damages: ☐ Yes ☒ No ☐ UnknownDamage in Dollars: Road Closed: ☐ Yes ☒ No ☐ UnknownRoad: Major Artery: ☐ Yes ☒ NoHours Closed: Direction of Closure:  Choose Closure Direction Track Closed: ☐ Yes ☒ No ☐ UnknownTrack: Passengers Transferred: ☐ Yes ☒ No ☐ UnknownHours Closed: Direction of Closure:  Choose Closure Direction Air Corridor Closed: ☐ Yes ☒ No ☐ UnknownAir Corridor:

		Hours Closed:	
Waterway Closed:	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	Waterway:	
		Hours Closed:	
Environmental Impact:	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Unknown	Type of Impact:	Choose Type of Impact
		Media Interest:	Choose Media Interest
<b>WEATHER INFORMATION</b>			
Weather Conditions:	Clear	Air Temperature:	65 Farenheit
Wind Speed:		Unit:	Choose Unit
		Wind Direction:	Choose Wind Direction
<b>REMEDIAL ACTION INFORMATION</b>			
Remedial Action Taken:			
Lay out absorbent booms and collect visual material. Replace seal on pump			
Release Secured:	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	Release Duration:	20 Unit: Minute
Rate of Release:		Unit:	Choose Unit
		Per:	Choose Rate
<b>ADDITIONAL AGENCY INFORMATION</b>			
Federal Agency Notified:	USEPA		
State/Local Agency Notified:	MDEQ		
State/Local Agency On-Scene:	MDEQ		
State Agency's Report Number:			
<b>ADDITIONAL INFORMATION</b>			
Additional Information:			

**Submit Fixed Report**

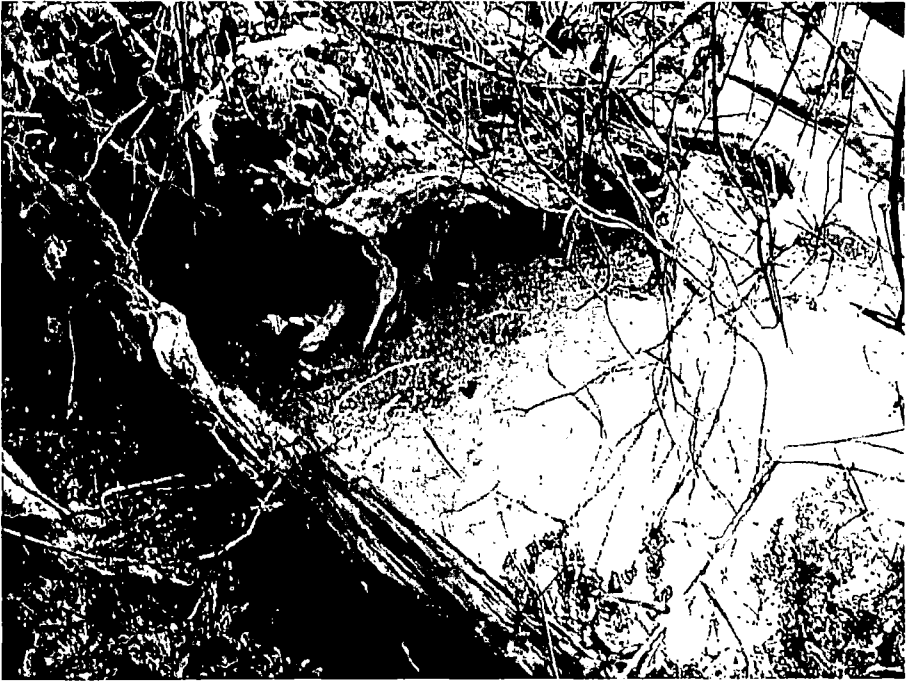
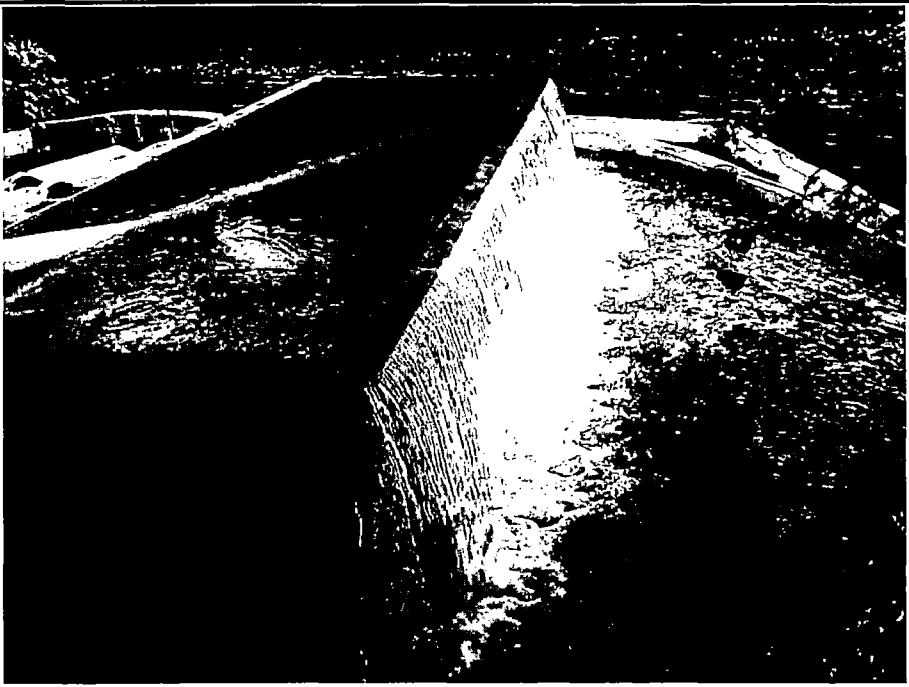


## Photographic Log

<b>Client Name:</b> Weyerhaeuser Company		<b>Site Location:</b> 12 <sup>th</sup> Street Landfill Plainwell, Michigan	<b>Project No.:</b> 00-05131.04
<b>Photo No.</b> 1	<b>Date</b> 9/11/07		
<b>Description</b>  Area adjacent to dumpster within first silt curtain			
<b>Photo No.</b> 2	<b>Date</b> 9/11/07		
<b>Description</b>  Secondary silt curtain area – minimal sheen on water			



## Photographic Log

<b>Client Name:</b> Weyerhaeuser Company		<b>Site Location:</b> 12 <sup>th</sup> Street Landfill Plainwell, Michigan	<b>Project No.:</b> 00-05131.04
<b>Photo No.</b> 3	<b>Date</b> 9/11/07		
<b>Description</b>  Area along shoreline adjacent to silt curtains some sheen within area			
<b>Photo No.</b> 4	<b>Date</b> 9/11/07		
<b>Description</b>  Dissipation tank – no remaining visual sheen			

**Dial-In Number: (866) 299-3188**  
**Conference Code: 3123538730**

- 1. Introductions - EPA**
- 2. Discussion and Resolution of EPA concerns – All**
- 3. Discussion of Limited Residential Re-Development - All**
- 4. Identify and discuss methods to improve the project coordination and communications - All**
- 5. Project Status Updates – Weyerhaeuser**
- 6. Action Items - All**

W-project update!

Statements about sampling - sample confusion.

FTP site for stuff.